Society have had before them a very large amount of valuable and interesting material. Should future volumes not disappoint the expectations raised by that before us, we may look forward to a series which will compare not unfavourably with the publications of any other similar society past or present.

J. A., Jr.

Art. XXIV.—*St. Andrew's Medical Graduates' Association. Transactions,* 1868. Edited by Leonard W. Sedgwick, M. D., Honorary Secretary. 8vo. pp. xxiv.—262. London: John Churchill & Sons, 1869.

The volume before us will scarcely meet with the flattering reception accorded to its predecessor. It is true that some of the papers bear evidence to great care in their preparation, but this cannot be said of the majority of them, which are by no means of equal excellence with those contributed last year to the *Transactions.* The first part of the volume is taken up with a report of the business matters of the Association, and contains nothing of any interest to our readers. The annual address of the President, Dr. B. W. Richardson, although delivered to an audience composed not merely of members of the profession, but of the general public, ladies as well as gentlemen, and therefore not entirely medical in its character, will be read with gratification by every intelligent physician. It is entitled *On the World of Physic and the World,* and is a clear and comprehensive demonstration of the important relations existing between the former and the latter, and of the duties which each owes to the other. The writer also succeeds in proving that medicine has been tributary to many other sciences, and that there are few of them in which some valuable and important discoveries have not been made by physicians, who have ever been pre-eminently distinguished, as a class, for the energy and perseverance with which they have cultivated pure physical science.

Dr. T. Harrington Tuke contributes a paper *On the Criminal Responsibility of the Insane,* in the course of which he protests against the existing laws of England in regard to the responsibility of the insane for criminal actions. As the law stands at present, a prisoner may be satisfactorily proved to be intellectually insane, and to have committed the act of which he is accused under the influence of a delusion, but provided he knew the act was against the law of the land, or, in other words, recognized the distinction between right and wrong, his insanity would not be a reason for acquittal. A very rigorous interpretation of this law would subject many of the inmates of insane asylums to its penalties, and is fortunately very rarely insisted upon, for one of twelve judges who, in answer to the interrogations of the House of Lords, declared that such was the law, himself interceded for the life of a man, condemned under these circumstances, on the ground that he had delusions. This part of the law has also received the condemnation of the Medico-Psychological Association, for at a recent meeting it was unanimously resolved "that so much of the legal test of the mental condition of an alleged lunatic criminal as renders him a responsible agent, because he knows the difference between right and wrong, is inconsistent with the fact, well known to every member of this meeting, that the power of distinguishing between right and wrong exists frequently in those who are undoubtedly insane, and is often associated with dangerous and uncontrollable delirium." Dr. Tuke, however, does not advocate the entire irresponsibility of the insane, for he thinks that society must be protected, but that this can be efficiently done without hanging lunatic homicides. "Except in those rare cases in which, as in puerperal mania, murder is the result of distinctly temporary disease of the nerve-centres, insane murderers should be confined for life, although regarded, not as criminals to be punished, but as sufferers to be pitied, and, if possible, cured, though never again to be released."

An animated discussion followed the reading of this paper, all the speakers concurring with Dr. Tuke as to the necessity of modifying the existing laws on this subject, and, as the first step towards this end, unanimously agreed to memorialize Parliament.

Dr. D. LLOYD ROBERTS read the report of *A Case of Imperforate Anus successfully operated upon.* In this case there was complete atresia of the anus and of about an inch and a half of the rectum, complicated, in all probability, with a fistulous communication between the rectum and bladder. There was no discoloration nor elevation of the skin; not even a pucker of the skin existed to indicate the anal orifice. The operation which was performed is thus described: "I made an incision in the median line of the perineum, in the position where I thought the rectum would be situated. Dividing the skin and subcutaneous areolar tissue in the direction of the coccyx, I continued the incision for about an inch and a half upwards into the pelvis. An exploratory examination was now made, first with the little finger, and then with a gum-elastic bougie. I thought I detected fluctuation, and accordingly plunged a large curved trocar and canula into the fluctuating spot. On withdrawing the trocar, I was gratified to see meconium, accompanied with a little blood, freely flowing through the canula. This was allowed to pass until it ceased to flow; upon which the canula was withdrawn. As the opening into the gut was too small, I passed a bistoury into the bowel through the previous incision, and commenced to enlarge it, directing the blade towards the sacrum. On effecting this, more meconium passed through the wound." Bougies were subsequently used to keep the opening from closing. The child did well; he was, however, noticed occasionally to pass water which was stained with feces. At seven and a half months of age he is described as a healthy, thriving, lively, unusually fat, big boy.

Success in this case is attributed to the early performance of the operation, before the occurrence of vomiting, and to the very slight disturbance occasioned in the position of the parts by the operation as compared with the method of Amussat. The rectum was so firmly fixed, that the force necessary to drag it externally so great a distance as an inch and a half would have given rise to much bruising and have caused a fatal result.

Dr. W. H. DAY contributes an article *On the Relative Value of Symptoms in the Diagnosis and Treatment of Disease.* As an analysis of this paper would not be of much interest to our readers, we shall content ourselves with quoting his conclusions:—

1. "That trifling symptoms are too apt to be overlooked, which may have a more important relation to the disease under which the patient suffers, than some more prominent symptoms which arrest the attention and are more peculiarly characteristic."

2. "That we should look at symptoms collectively, and assign to each its true value, in relation not only to its prominence, but to the position of the affected organ."

Diphtheritic Paralysis, and its Treatment by Strychnia, is the subject of a paper by Dr. HENRY MAUND, who reports a case. He is inclined to think that paralysis more frequently follows mild than severe cases of diphtheria; in fact, in the case which he reports, the sore throat was so slight that it did not arrest attention, and yet the subsequent history of the case proves, he thinks, that it must have been diphtheritic. It was not until a month after the affection of the throat that the patient had paralysis of the lower extremities and loss of the sense of sight and smell. The treatment adopted was the administration of strychnia in doses varying from one-twentieth to one-tenth of a grain three or four times daily, which was followed by great improvement. Sometimes immediately after the administration of the medicine the sight returned, to be lost again as its effect wore off. A complete restoration to health took place at the end of eleven months.

Dr. BOGG reports a case of *Fracture of the Sternum from Violent Muscular Contraction.* A man, while attempting to get some casks out of the hold of a vessel, felt something give way in his chest, and immediately afterwards was seized with difficulty of breathing. "His expression was anxious, respiration peculiar and painful, and there was a peculiar depression over the sternum, which was parabolic in form, the apex being immediately below the articulation of the fifth costal cartilage, the depressed portion was very mobile, and the crepitus was distinctly audible. There was no bruising or discoloration of the integument." Under appropriate treatment, the patient was able to leave his bed at the end of the third week, but did not resume work until forty-five days after the accident.

Dr. **Walter Whitehead** contributes a paper on *The Physiological Effects of Chloroform.* The writer takes exception to the generally received statement that all anæsthetics act by cutting off or lessening the supply of oxygen to the brain. Acknowledging that nerve force cannot be considered as entirely identical with electricity, he nevertheless finds in many of their effects great similarity. A property common to them both is the necessity of a continuous insulated conductor. If we admit, he adds, this theory, it is evident that the conduction may be stopped by the removal of a single molecule, or by the separation of two contiguous molecules by an insulating body. Now, as chloroform permeates all the tissues, he thinks it acts by insinuating itself between constituent molecules of the nervous substance; and as it has been satisfactorily proved not to be a good conductor, it interferes with the mutual relation upon which the fulfilment of their function has been shown to depend. This explanation will, he thinks, render clear some of the peculiarities of the action of chloroform as distinguished from that of nitrous oxide; thus, for example, the greater length of time necessary to place a person under the influence of, and to relieve him of the effects of chloroform than of nitrous oxide.

Dr. **Drysdale** read a paper entitled *An Examination of the Effects of Residence in Alpine Regions, and of different Climates, in the Prevention or Cure of Consumption*, in which he states as his conclusion that there is no doubt that consumption is less frequent in heights than in valleys, and, to prove this, quotes the statement of a writer in the *British Medical Journal* for 1867. In the tropical zone, consumption, according to this author, may be regarded as rare above 7000 feet; in the warmer temperate zone, above 3500 to 5000 feet; in the colder temperate zone, above 1300 to 3000 feet elevation. We are not, however, told that which it is much more important that we should know, what effect elevation would have upon a patient with phthisis, for it scarcely admits of denial that the immunity of a place from phthisis may depend upon conditions not altogether favourable to the continuance of life in a consumptive patient. It is well known, moreover, that the effect of an elevated region is to produce acceleration of the pulse and respiration, and increase of the appetite; the latter would almost always be of service, the former often very injurious. Dr. Drysdale places very little reliance on the medicinal treatment of the disease, and thinks the best preventives are nutritious food and proportionate great exercise in free and open air. This, of course, should be joined with good ventilation in dwellings.

Among the ablest and most instructive papers in the volume is the honorary Secretary, Dr. L. **Sedgwick**'s *Report on the Parasitic Theory of Disease.* As the author has himself given an analysis of his paper in the conclusions at which he arrives, we cannot do greater justice to it than in simply transcribing them. He finds then—

"That the organisms described as bacteria, vibriones, and bacteridia are equally, with the higher forms, as achorion, ustilago, &c., vegetable growths, and are probably embryonic conditions."

"That the same plant takes many forms, depending on its stage of growth, whether it be young or old, and depending on external circumstances, such as food, light and heat."

"That these plants propagate in all their forms by division of the individual and in their adult state, by reproduction of their kind."

"That there is not at present sufficient evidence to prove that they are propagated in any other way than from germs derived from a parent of like kind; and consequently that the theory of spontaneous generation cannot be accepted as a demonstrated fact."

"That the germs from which they arise are very minute, can be dried for years, can be frozen, and can be heated above the boiling point of water, and yet retain their faculty of growth when placed in proper conditions."

"That fermentation is produced by the growth of a plant in the substance undergoing the change; and that it is highly probable that the different varieties of fermentation, vinous, acetous, lactous, &c., are produced either by different plants or by different stages of maturity of the same plant."

"That, as putrefaction differs from fermentation only in the character of the original fluid and resulting products, not in the nature of the chemical change, it is not likely that its essential cause is of a different kind."

"That local changes producing death of the part, and general changes producing death of the whole body, are produced by parasitic vegetables in plants and in the lower animals."

"That such parasitic vegetables are not developed from any part of the infected organism, but grow from germs originally introduced from without."

"That similar parasitic vegetables produce special diseases of the skin and of the bones in the higher animals and in man."

"That the growth of parasitic vegetables in the stomach produces unnatural fermentative changes with definite morbid symptoms."

"That a parasitic vegetable growth on the tongue is the cause of thrush and like diseases."

"That the evidence adduced in favour of the dependence of ague and cholera on parasitic vegetable growth is still insufficient for the proof."

"That the evidence adduced in favour of the dependence of syphilis and gonorrhœa on parasitic vegetable growth is very weak."

"That there is sufficient evidence to prove that diphtheria, croup, measles, and hooping-cough do not depend on the growth of parasitic plants."

"That putrefactive changes may be produced in the blood of a living animal when blood containing bacteria is injected into it."

"That analogy and experiment both point to the bacteria as the cause of this putrefactive change."

"That it is probable that varieties of putrefactive change may be produced either by different bacteria or by different stages of growth of the same plant, and hence the different classes of symptoms may arise."

"That such putrefactive change of the blood may occur in many different forms of disease, which, although differing in name and in primary local manifestation, are the same in nature."

"That the morbid symptoms are the direct result of the foreign chemical compounds, probably produced in the blood by the agency of the bacteria."

"That putrefactive change of the blood so induced, may occur in the progress of any disease, and produce destructive symptoms."

"That there is not sufficient evidence to show that specifically differing bacteria produce specifically differing diseases."

Dr. GEORGE CORDWENT furnishes some *Clinical Notes* to the volume. The first case reported is that of a healthy young woman, who was delivered of a child and the accompanying placenta while standing, and who died immediately after. Death was attributed to the rapid expulsion of the placenta and the subsequent admission of air into the cavity of the uterus before the mouths of the veins were closed. The coronary vein of the stomach was found distended with air, which was also believed to be present in the right cavities of the heart, although its presence was not positively made out. Dr. Cordwent thinks that this case shows the great danger attendant upon the hasty removal of the placenta, for although all the necessary conditions for the admission of air into the venous system will rarely be present at any one time, still that they may occasionally be so is shown by the present case; besides which, if there were poisons in the air the raw surface left by the placenta in the uncontracted uterus would furnish a very ready avenue for their absorption into the system. There is no more reason to assign half an hour as the proper time to wait for the spontaneous delivery of the placenta than five or six hours, and its rapid delivery is, he thinks, the cause in many instances of uterine disorders.

This is followed by the report of a case of persistent syphilitic taint in a man either destroying or affecting the offspring without apparently inflicting any injury upon the mother, either in womb or constitution.

The next case is that of a boy of 14 years of age who was gored by a bullock;

a laceration of about three inches and a half being made in the abdominal walls, through which six feet of the small intestines protruded. The bowel was uninjured and was very readily returned, and the sides of the wound were brought together by means of pins properly supported. Little or no constitutional symptoms supervened, even sleep being unbroken, except during the first night. The patient vomited the first night, but subsequently, although there was no hunger, there was no nausea, and no aversion to either food or drink. The bowels were moved naturally on the fourth day; on the fifth day the pins were removed.

A case of perineal calculus is also reported. The patient from whom it was taken was a man 75 years of age, who noticed a gradual impediment to the flow of his water, which was followed by the occurrence of perineal fistulæ. Surgical relief was declined, but in course of time the stone presented at one of the fistulæ and was removed without difficulty. A few months later the patient died, but no post-mortem examination was obtained. The calculus was four inches long in its convexity and one and one-eighth inch in diameter at its thickest part. It was of whitish colour, of little weight, porous on the surface but dense in the interior, and was composed of a large portion of animal matter, much triple phosphate, some phosphate of lime, and in places a trace of uric acid.' Its weight is not given. A plate containing two figures accompanies the report of this case.

Dr. Spencer Thomson contributes a paper on *British Cholera, and Asiatic Cholera, considered in connection with the Fungoid Theory, and their Treatment by Castor Oil.* Dr. T. begins his paper with a reference to the fact that during the summers of 1846 and 1868, which were distinguished by their great heat, the deaths from cholera, diarrhœa, and dysentery exceeded the usual number, and that a temporary increase always accompanied a rise of temperature. He dissents from the generally received opinion that bilious vomiting and purging constitute the first stage of autumn cholera, or, as we should call it, cholera morbus, for he says that a careful examination will almost always disclose the fact that the patient has suffered for some time previously from feelings of lassitude, and inaptitude for exertion, physical or mental; depressed spirits, and headache, especially after meals; sleep disturbed by disagreeable dreams, or very heavy and constant insuperable drowsiness in the daytime, particularly after meals; gastric and hepatic functions much deranged, bowels irregular—occasionally griped; urine generally depositing highly coloured urates and uric acid. Cases characterized by the above symptoms all show an astonishing susceptibility to the action of mercurials, and recover if appropriate treatment be adopted. The bilious vomiting and purging, if unrestrained and excessive, it is true, may prove injurious, but are generally to be looked upon as an effort on the part of nature to rid the system of some noxious element, and this is believed to be carbon. To avoid the condition which is likely to culminate in cholera morbus, we are counselled to attend scrupulously to the cleanliness of the skin and to avoid an excess of carbon in our food, since it requires little demonstration to prove that between the carbon taken as food and the oxygen inhaled some proportion must be sustained; or that the quantity of oxygen inhaled depends upon the temperature and density of the atmosphere, and that heat diminishes the changes effected by respiration in the blood, a result which is further favoured by the indisposition to exertion, which naturally exists during hot weather. All the symptoms, moreover, indicate an excess of carbon in the blood, and are precisely similar to those present in poisoning from carbon gases.

On the other hand, Asiatic cholera appears to differ in its causes and in its symptoms, and to depend primarily upon some irritation of the ganglionic or cerebro-spinal system. All the best authorities on this disease distinctly maintain its nervous nature and deny the occurrence of premonitory symptoms, but assert that, on the contrary, it very often strikes down its victim in the midst of apparently good health. In fact, the symptoms which have been especially thought to show the analogy between the two diseases are essential to neither, and it is well known that cases of Asiatic cholera frequently terminate fatally before their occurrence. The post-mortem appearances in the latter disease also show its cerebral and spinal origin.

Dr. Thomson then discusses the fungoid theory of this disease, to which he is disposed to attach some weight, but he does not consider it necessary to accept Dr. Hallier's explanation that the morbific agent first acts upon the alimentary canal, or as a blood poison, changing the composition of that fluid, but thinks that it is *a specific poison acting upon the nervous system.* He sees no more reason why a fungoid of rice should not produce the symptoms of cholera than that peculiar effects should attend the administration of ergot of rye, which is now known to affect the nervous centres in a marked way. In conclusion, he says, if Asiatic cholera be a disease in which the nervous system—no matter how acted upon—are the centres whence the characteristic symptoms are radiated, it is evident that the true remedies for the disease are to be sought for among those which act most directly upon these centres, and are to be introduced by hypodermic injection, as the stomach is not retentive. Ergota and atropia are recommended, together with ice bags to the spine, the free imbibition of water, and saline injections. In addition to the above, there is still a further difference pointed out between the two diseases. In cholera morbus the "algidity" comes on after the evacuation, and is evidently directly dependent upon the loss of liquid, whereas, in Asiatic cholera the algide symptoms may come on from the very commencement of the attack, and the patient may die in the stage of collapse before their occurrence. "The British disease," he says, "first exhibits its symptoms at the periphery, and develops, as it were, towards the centre; the Asiatic, commencing at the centre, develops its symptoms outwards."

Dr. EDWARDS CRISP contributes a long paper *On the Influence of a Moist Atmosphere in the Production of Pulmonary Consumption*, which is evidently the result of much careful research. It is scarcely necessary to say that his conclusion is that a moist atmosphere has a most powerful influence in the causation of phthisis. He finds, moreover, that there is no such powerful antagonism between malaria and the causes of phthisis as many have supposed to exist. Appended to this paper are the opinions, on these points, of many medical men living in different parts of Great Britain.

The *Movements of the Iris* constitutes the subject of a long essay by Dr. C. ECKHARD, Professor of Physiology in the University of Giessen. As it consists of a critical *résumé* of the views held on this subject which are familiar to our readers, and as Dr. Eckhard himself does not seem to us to come to any settled conclusion on most of the points which are still involved in dispute, we shall not attempt to make an abstract of it.

The President, Dr. RICHARDSON, contributes some remarks on the *Effects of Seasonal Changes on the Animal Body.* Some years ago a Mr. Milner, of Wakefield, performed a series of experiments with a view of determining the periodical fluctuations in weight, substance, and form, which the whole body undergoes. He weighed every prisoner upon his entrance into the convict establishment at Wakefield, and subsequently at the end of every calendar month, all of them, of course, being subjected to similar conditions of temperature, food, exercise, and ventilation. The number of men weighed exceeded 4000, and the total number of individual weighings was 44,004. From his experiments we learn that there was a progressive loss of weight in January, February, and March, and a gain in April, May, June, July, and August, and a loss in September, October, November, and December; or, in other words, an increase of weight during the hot months, and a diminution during the cold. These results are in accordance with physiological truth, for Dr. Ed. Smith has shown that the quantity of carbonic acid exhaled in winter is largely in excess of that given out in summer, and the sudden gain in weight in April is found to correspond with an equally abrupt diminution in the quantity of carbonic acid expired. In conclusion, he says, we should naturally expect that diseases of the lungs would be most frequent at seasons when they are most active, and such, as is well known, is the case.

Another contribution by the same author is *On the Uses of Nitrogen in Atmospheric Air.* Dr. Richardson says, that the reason that pure oxygen is incapable of sustaining life is different according to the temperature of that oxygen. Thus, at temperatures below 50° Fahr. oxygen cannot enter into combination, but if brought into active motion by heat it will destroy ultimately, by just the opposite process, *i. e.*, by setting up too active a combustion. It would be impossible to live surrounded by an atmosphere of oxygen in a climate subject to the variations of temperature common in this country or England. He therefore finds in nitrogen something more than a mere diluent of oxygen, for, says he, " It is the grand equalizer of heat. Thus, when the day is cold the loss of heat from the atmosphere is sustained as four to one by the negative nitrogen; and thus when the day is hot the increase of heat in the atmosphere is sustained as four to one by the negative nitrogen. Thus the oxygen, although it undergoes physical change under great variation of heat and cold, and although it is actually more condensed at the poles than the equator, is never so much disturbed but that it can sustain a certain degree of life."

Dr. SEDGWICK exhibited to the Association *An Adaptation of the Reflecting Mirror to the Uterine Speculum.* The adaptation consists simply in attaching to the vaginal speculum an ordinary reflecting laryngoscopic mirror by means of an arm with a ball-and-socket joint. When the mirror is used, it is unnecessary to alter the position of the patient, for, no matter what the source of light may be, the mirror can be adapted so as to reflect on the cervix uteri, and a better illumination may thus be obtained either by day- or candle-light, and the danger of spilling grease on the patient's clothes is obviated, while both hands of the operator are left free. A plate representing the speculum with the adaptation is appended.

The last paper in the volume is *On the Best Means of Lessening Crime*, and is by Dr. GEORGE CORDWENT. No means can be effectual, the author thinks, which do not include the better education of the young and the improvement of the condition of the poor. J. H. H.

ART. XXV.—*Transactions of the Obstetrical Society of London.*—Vol. X. For the year 1868. 8vo., pp. xlviii. 319. London, 1869.

AT the January meeting of the Obstetrical Society of London, three papers were read. The first on *Funis Presentations*, by H. G. TREND, late Resident Accoucheur to St. Thomas's Hospital. In a mixed London practice, where about 250 cases had been annually attended, Mr. T. met with twelve cases of funis presentation during the preceding five years, six of which came under his notice during 1867. In funis presentations, all our efforts are to be directed towards saving the child. In most cases, excluding those where the cord has ceased to pulsate, the question to be solved is, how to deliver in the quickest manner, with the least injury to the mother. In some cases restitution of the cord may be successfully accomplished, though Dr. T. has never met with such a one. In funis cases, complicated with transposition of fœtus, the case can only be treated by turning. "I would turn," says Dr. T., "where the head had not descended into the true pelvis, or had come down but a little way." He would prefer an average pelvis as to size, with a perineum capacious and yielding. There is very little danger of rupturing the latter in turning.

The cases requiring the use of the forceps are those where the head has entered the true pelvis. With a well-dilated perineum, delivery with the forceps is rapidly effected without injury to the soft parts of the mother; even where there was considerable rigidity Dr. T. has been able to use them with tolerable facility. In these cases there is seldom time for long consideration. As far as regards the safety of the child, in such cases, we must act promptly or all interference will be useless. Dr. T. found, in many cases, cough to have been the exciting cause of the complication.

In the second paper, by HENRY W. BAILEY, is related a *Case of Transposition of the greater part of the Abdominal Viscera into the left cavity of the Thorax*, by which the heart was pushed to the right side of the chest. The child survived its birth, in a feeble, half asphyxiated condition, some few hours.